Forthcoming in Analytic and Continental Kantianism (Routledge), ed Gironi

Speculative Materialism or Pragmatic Naturalism?: Sellars contra Meillassoux

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1. Introduction

To be a philosopher is, among other things, to be haunted by problems. A philosophical problem is that to which one is always returning, a burning in the mind that refuses to be quenched, an attractor in one's cognitive meanderings — until one day (or night) it is replaced by (or evolves into) another. There are millennia of techniques for working through philosophical problems; the difficulty lies not in ignorance of technique but in not knowing ahead of time which technique will resolve the particular problem by which one is haunted. In writing about two philosophers as original and obscure as Quentin Meillassoux and Wilfrid Sellars, it is unfortunately all too easy to make facile and superficial comparisons. Of course they do have much in common, but the commonalities are only interesting if they are philosophically fecund. I will show that this is indeed the case, because at the intersection of Sellars's thought and Meillassoux's thought there is a problem that I will call *the problem of naturalism and rationalism*.

The problem of naturalism and rationalism is the problem of how we can be *entitled* to both, given that one experiences both as attractors in one's thinking. By naturalism I mean what analytic philosophers understand as both *metaphysical* naturalism (there are no causally efficacious abstract entities) as well as *methodological* naturalism (philosophical reflection has no epistemic priority over empirical inquiry). By rationalism I mean a confidence in the power

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi of human reason to both work towards cooperative problem-solving and to discover truths about the world. Within the "Western" philosophical tradition, rationalism and naturalism have often been positioned as mutually exclusive, whether in Plato's critique of Anaxagoras in *Phaedo*, Descartes's worry that his intellect is not reliable if it came about through chance and necessity, Nietzsche's hermeneutics of suspicion sustained by naturalism, or Plantinga's argument that naturalism is self-refuting. The problem of naturalism and the problem of rationalism, thus intertwined, is both one of the oldest philosophical problems as well one of the newest.

Both Sellars and Meillassoux are haunted by the problem of rationalism and naturalism. Both struggle to understand why both rationalism and naturalism are true, and both understand that the key to doing so is to understand reason itself in light of naturalism. Thus both pose the question (in different ways) of how to understand philosophy in an age of science. To sharpen this considerably, I will begin with Meillassoux's critique of what he calls "correlationism" and his worry that correlationism is both unable to sustain scientific realism and also, in its strongest form, licenses anti-rationalism (§2). I will then turn to Sellars's criticism of 'the Myth of the Given" and his distinction between what he calls 'signifying' and 'picturing' to show how he evades correlationism (§3). I will turn to a Sellarsian criticism of Meillassoux's speculative materialism, and argue that Meillassoux's account offers less to science than it initially seems to promise (§4) before concluding (§5).

2. Meillassoux's Overcoming of Strong Correlationism

It is no secret that Meillassoux aims at challenging one of the most deeply-rooted assumptions of 20th-century philosophy: that of *anti-realism*. As recently as 2003, comparisons between 'analytic' and 'Continental' philosophy were restricted to the anti-realists on both sides (Prado 2003). That finally begun to change with the emergence of Continental realism, to which Meillassoux's *After Finitude* is a remarkable (though not unproblematic) contribution. Part of the distinctiveness of Meillassoux's contribution here is his willingness to develop realism – what he calls "speculative realism" – in close-quarters combat with Kant. Hence we need to examine Meillassoux's Kant in order to see how speculative realism emerges through this engagement. Through this engagement, Meillassoux tries to show that there are only three coherent philosophical positions: dogmatism (metaphysics), fideism (phenomenology), and realism (Meillassoux's own speculative realism). We shall need to understand Meillassoux's reasoning here in order to establish that Sellars's position does not fit into Meillassoux's typology.

The initial problem that Meillassoux poses, and one that has attracted much serious attention in subsequent discussions, is the impossibility of reconciling the literal truth of science with Kantian and post-Kantian philosophy. What Meillassoux wants is to return thought to "the great outdoors" (Meillassoux 2009, 7), to its pre-Kantian confidence in thought's power to grasp the absolute. In posing the problem, Meillassoux begins by focusing (perhaps problematically) on what he calls "ancestral statements": statements about what happened before the emergence of consciousness. The problem of such statements is understanding how it is that we do understand them: "How are we to grasp the *meaning* of scientific statements bearing explicitly upon a manifestation of the world that is posited as anterior to the emergence of thought and even of life – *posited*, that is, as anterior to every

form of a human relation to the world?" (ibid., 9-10). Statements that refer the origins of the universe, the evolution of life, or the emergence of rational cognition would seem to require that we can have reliable knowledge of how the world is independent of our situation within the world as a contingent part of it. Yet it is precisely this that Continental philosophy,

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Ancestral statements refer to what Meillassoux calls the "arche-fossil": that which preexists the very possibility of experience, and as such pose a challenge to all transcendental philosophy:

following Kant, has insisted on denying.

For the problem of the arche-fossil is not the empirical problem of the birth of living organisms, but the ontological problem of the coming into being of givenness as such.

More acutely, the problem consists in understanding how science is able to think — without any particular difficulty — the coming into being of consciousness and its spatio-temporal forms of givenness in the midst of a space and time which are supposed to pre-exist the latter. More particularly, one thereby begins to grasp that science thinks a time in which the passage from the non-being of givenness to its being has effectively occurred — hence a time which, by definition, cannot be reduced to any givenness which preceded it and whose emergence it allows. (ibid., 21)

On Meillassoux's analysis, the heart of Continental anti-realism lies in its commitment to what he calls "correlationism": the thesis that being and thought are always correlated, and that there is neither being without thought nor thought without being. The problem is that "there is no possible compromise between the correlation and the arche-fossil" (ibid., 17). If we are to

¹ For a criticism of Meillassoux's focus on time per se as the central point of contention between science and philosophy, see Brassier 2007: 58-60.

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi understand how we can grasp truths that are independent of the conditions of experience, then we must reject correlationism.

As correlationism begins with Kant, we must first notice *how* it does so, and what reasons motive the turn towards correlationism. Though Meillassoux does not put the point quite this way, correlationism begins with Kant's turn towards anti-foundationalism: there is no epistemic access to objects that is not mediated by *how* we relate to them. Conversely, there is no epistemic access *to ourselves* as subjects that is not mediated by our relations with objects. Thus consciousness of objects and self-consciousness are constitutively inter-dependent: it is not possible for beings with our distinct kinds of cognitive capacities and incapacities to have one without the other. To adopt Jay Rosenberg's (1986) term, this is the Kantian "mutuality thesis". What makes the mutuality thesis philosophically important is that it emerges in response to the manifest failures of both dogmatic rationalism and skeptical empiricism. What Meillassoux must do, then, is show that we can reject correlationism without falling back into the conundrum from which Kant rescued us.

On Meillassoux's view, the term "metaphysics" refers to the intellectual project of trying to establish the necessary existence of some entity. Hence the metaphysician is always an ideologue, insofar as the ideologue is attempting to show why some fact of social or political relations necessarily exists and cannot be changed. The epistemic warrant claimed for some contingently existing state of socio-political relations lies in the necessity for those conditions claimed to be understood by the apologist for the status quo. But the awareness of that necessity depends on a privileged insight into how things must be. It is, to use a Sellarsian term, the Myth of the Given (see §3). That is, on Meillassoux's explication of "metaphysics," the complicity of metaphysics with ideology means that all metaphysics is a version of the

Myth of the Given. What is striking about this claim is not, however, that it emerges within the context of Continental philosophy – one can undoubtedly find Heidegger or Derrida to be making an equivalent point. Rather, what is interesting in Meillassoux is that he takes this point to be *compatible* with a demanding ontology that he calls "speculative realism" or "speculative materialism" (though how materialistic it is shall concern us in §4).

Returning to Kant – or Meillassoux's Kant – we can see now that invoking the correlation allows Kant to resolve the failures of dogmatic metaphysics, both in terms of the irresolvable and interminable debates amongst dogmatic metaphysicians about the nature of the necessarily existing entities and their possible causal relations (e.g. Spinoza vs Leibniz, Leibniz vs Malebranche, Malebranche vs Berkeley), together with the inability of metaphysicians to respond adequately to the onslaught of skeptical attacks on the very possibility of dogmatic metaphysics (e.g. Sextus Empiricus, Montaigne, and Hume). The mutuality thesis establishes the insufficiency of both dogmatism and skepticism. Contra skepticism, we *do* have epistemic access to objects sufficient to establish the universality and necessity of laws of physics; contra dogmatism, our epistemic access to objects is mediated by our relations to them and cannot ground any claims about how objects really are independent of that relation.

The mutuality thesis, in the original Kantian formulation, requires a purely formal subject – a subject that has no existence in the world, that never experiences itself *qua* rational, free agent. The problematic is decisively altered if one affirms, against Kant (and the early Husserl) and with Merleau-Ponty (and perhaps the later Husserl) that the conditions of subjectivity are necessarily embodied or at least that "the body is also the condition for the taking place of the transcendental" (Meillassoux 2009, 25). This decisive turn in the evolution of correlationism, together with the discovery of deep time (e.g. the age of the Earth and of the universe), allows

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us to pose a question: "how to conceive of a time in which the given as such passes from non-being into being?" (ibid., 21): that is, how to conceive of a time prior to the satisfaction of the conditions of possible experience to a time in which those conditions can be satisfied. This question -- "the ontological problem of the coming into being of givenness as such" (ibid.) – is one that science poses to us and which correlationism cannot answer.

Meillassoux's argument against correlationism requires that he distinguish between the "weak correlationism" that I have identified as the Kantian mutuality thesis and the real target of his criticism, what he calls "strong correlationism". The mutuality thesis only establishes what Meillassoux calls "weak correlationism", since (according to Kant) things in themselves, although unknowable (by us or by beings with minds like ours) are not only *thinkable* but that we *must* regard them as thinkable. Our conception of things in themselves requires that they exist and that they be non-contradictory, since if they were contradictory we could not possibly think of them at all, insofar as the law of non-contradiction is a constitutive principle of all thinking as such. The question that divides post-Kantian thought within the Continental tradition is, "what grounds the correlation itself?"

On Meillassoux's account, there are two dominant responses to this question, as represented within *After Finitude* by Hegel and by Heidegger. The Hegelian response, on Meillassoux's account, is *to absolutize the correlation itself*. This entails showing the correlation is absolutely necessary. Thus it is not some extra-correlational entity that necessarily exists, but rather, according to absolute idealism, it is the correlation itself that is absolutely necessary. Meillassoux does not give explicit arguments against absolute idealism, but it is probably fair to say that absolute idealism, at least Meillassoux's version, is not the metaphysics that science needs.

The Heideggerian alternative – also associated by Meillassoux with Wittgenstein, though it is not clear if it is the Wittgenstein of the *Tractatus* or that of the *Philosophical Investigations* – is to affirm the *ungroundedness* of the correlation. This view, which Meillassoux calls "strong correlationism", holds that things in themselves are not only unknowable but also *unthinkable*. To be an object is to be correlated with a subject; to be a subject is to be correlated with objects. According to strong correlationism – and this is its main point of divergence from absolute idealism – the subject-object correlation can be *described* but it cannot be *justified*. It cannot be grounded in or derived from anything other than the correlation, because we cannot even think of anything that is not internal to the correlation. To use Braver's (2012) helpful phrase, Wittgenstein and Heidegger are thinkers of "groundless grounds": there are indeed constitutive principles that correlatively structure the kind of life that we have (the *existentialia* of *Dasein*, the rules or norms of our forms of life), but nothing grounds or justifies these correlations.

What Meillassoux now attempts to show is that the correlationist's retreat from dogmatism has led to a recovery of "fideism". Instead of the dogmatic insistence on one's own comprehensive doctrine being the only correct one – and hence legitimizing violence against those who do not share it – the strong correlationist gives rise to the fideist, who cannot offer a reasonable response to the purveyors of ideologically justified violence. The strong correlationist must accept a plurality of comprehensive doctrines, each of which constitutes the phenomena disclosed by that form of life or conceptual framework; as a consequence, "if nothing absolute is thinkable, there is no reason why the worst forms of violence could not claim to have been sanctioned by a transcendence that is only accessible to the elect few" (Meillassoux 2009, 47). There is no epistemic access to mind-independent reality against

which forms of life could be assessed or evaluated. Meillassoux sees strong correlationism as leading to the rise of relativism in its most anti-intellectual version is the characteristic mentality of our time: "The modern man is he who, even as he strips Christianity of the ideological (metaphysical) pretension that his belief system was superior to all others, has delivered himself body and soul to the idea that all belief systems are equally legitimate in matters of veracity" (ibid., 48). The result is that every conceptual framework is put on an epistemic par; none of them can be justified, but for the exact same reason, none of them can be declared illegitimate. To use Barber's (1995) distinction between the two competing global narratives – "Jihad vs McWorld" – then if dogmatism is 'Jihad', then fideism is 'McWorld': one can chose whatever one likes from the menu of conceptual options and nothing really matters because it all tastes the same. (This is not to say that Meillassoux's taxonomy maps neatly onto Barber's, only to say that Barber's work, and similar explanations of the growing tension between global cosmopolitan neoliberalism and xenophobic ethno-nationalism, adds a socio-political dimension to Meillassoux's concerns.)

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What Meillassoux wants, then, is an alternative to both dogmatism and fideism that will allow him to return to the spirit of Enlightenment rationalism and scientific realism, but while at the same time acknowledging the importance of correlationist challenge to dogmatic metaphysical realism. To do this, Meillassoux attempts to execute a remarkable *Aufhebung* against strong correlationism. He agrees with the strong correlationist that the correlation is contingent and not necessary, yet then argues that the contingency *itself* is absolutely necessary. Hence the strong correlationist is mistaken to think that *nothing* is absolutely necessary, for there is indeed one thing that is, and that is the contingency of the correlation. Briefly put, if the contingency of the correlation were *not* necessary, then it would be possible

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi for the correlation to be non-contingent. But this is inconsistent with the insistence on groundlessness and finitude that characterizes strong correlationism in the first place, since if it were possible for the correlation to be non-contingent, then it is possible that it is absolute, and strong correlationism collapses into absolute idealism. The strong correlationist can only correctly maintain her emphasis on the contingency of the correlation by conceding the necessity of the contingency of the correlation. Thus strong correlationism can only be

(relatively) true if it is (absolutely) false.

In order to maintain the relative truth of strong correlationism in light of its absolute necessity, Meillassoux finds that he must reject the principle of sufficient reason. According to the PSR, there is a reason for every (contingent) fact. If the correlation itself is a contingent fact, then according to the PSR, there must be a reason for it. But if there were a reason for the correlation, then the correlation would be grounded in something other than the correlation itself, and hence there would be something not only thinkable but also knowable exterior to the correlation. To prevent this from happening, Meillassoux rejects the principle of sufficient reason in favor of what he calls "the principle of unreason": there is no reason for any contingent fact. Contingent facts, including the correlation itself, are governed only by the principle of non-contradiction. Anything can happen at any time, not for any reason but for no reason at all: "our claim is that it is possible to sincerely maintain that objects could actually and for no reason whatsoever behave in the most erratic fashion, without having to modify our usual everyday relation to things" (Meillassoux 2009, 85). It must be indicated here – as we will see in §3 as well – that it is indeed crucial to Meillassoux's thought that the ontological position staked out here has no practical difference.² Or, as Meillassoux summarizes the main

² Johnston suggests that this commitment is also anti-Marxist (2011, 101-102).

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi achievement of *After Finitude*, although his thought is a thought of the absolute, it is a "nonabsolutist absolute [that] will no longer take the form of a necessary being (for example God) or of a necessary mode of being (for example becoming), but that of the contingency of all beings and all modes of being – the corollary of which will be a rationality freed from the Principle of Sufficient Reason, and which therefore maintains that there is no reason for anything to be as it is rather than otherwise" (Meillassoux 2016, 120). In place of the principle of sufficient reason, Meillassoux offers an ontology (if it can be called that) of what he calls "hyper-Chaos".

The subsequent reception of Meillassoux's critique of correlation has led to a welcome resurgence of metaphysical realism within Continental philosophy. Several philosophers have objected that Meillassoux's speculative realism ultimately caches out as a mathematical realism that cannot do justice to the insight about the truth of ancestral statements and other statements of scientific discovery (see Brassier 2007; Hägglund 2011; Johnston 2011). Without delving further into the nuances of Meillassoux's position in *After Finitude*, I want to develop a contrast between his position and that of Wilfrid Sellars based on two claims: firstly, that Sellars's position does not fit into any of the main camps that Meillassoux articulates in his taxonomy of views, which calls into doubt the overall adequacy of Meillassoux's taxonomy (§3); secondly, that Meillassoux's positive project is vulnerable to Sellarsian objections on two grounds: that Meillassoux does not adequately allow for scientific explanations, such as those that give us ancestral statements, and that Meillassoux's own speculative realism require its own version of correlationism, such that it succumbs *malgré lui* to the Myth of the Given (§4).

3. Sellars's Pragmatic Naturalism

Sellars, much like Meillassoux, aspires to vindicate a version of scientific realism through a close reading of Kant. Unlike Kant, and much like Meillassoux, Sellars defends the idea that we can indeed have knowledge of things in themselves. And yet Sellars, also much like Meillassoux, acknowledges that there is a truth to correlationism that must be retained even when transposed into a fully naturalistic framework. Yet Sellars develops his argument along importantly different lines, less radical than Meillassoux in some respects and more so in others. Here I will begin with a brief discussion of Sellars's basic contrast between 'the manifest image' and 'the scientific image' is similar to Meillassoux's contrast between the strong correlation and post-metaphysical speculation. I will then turn to Sellars's analogue of the correlationist circle, which he calls 'the Myth of the Given' (but see Christias 2016 for a more comprehensive comparison of these two concepts) before looking at Sellars's distinction between 'signifying' and 'picturing' as his alternative. The crucial difference between the manifest image and the scientific image lies in the kinds of explanation available, as will inform the subsequent contrast (§4).

In his "Philosophy and the Scientific Image of Man" (1963a), Sellars develops an idealizing contrast between ways in which we can understand ourselves, with the crucial assumption that it is essential to what we are as human beings that we are interested in understanding what kind of beings we are. To be a scientifically informed philosopher is to be aware of being confronted by "*two* pictures of essentially the same order of complexity, each of which purports to be a complete picture of man-in-the-world, and which, after separate scrutiny, he must fuse into one vision" (Sellars 1963a, 4). Yet these comprehensive

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi frameworks are not consistent, and Sellars takes it that the philosophical demand for a *genuinely* comprehensive understanding requires fusing these two distinct and incompatible comprehensive frameworks.

In what Sellars calls "the manifest image", the essential idea is that "anything which can properly be called conceptual thinking can occur only within a framework of conceptual thinking in terms of which it can be criticized, supported, refuted, in short, evaluated" (ibid., 6). Since nothing can count as an episode of thought without some background norms of evaluation, we are led to think that "the transition from pre-conceptual patterns of behavior to conceptual thinking was a holistic one, a jump to a level of awareness which is irreducibly new" (ibid.). In the manifest image, we are fundamentally and essentially persons – the sorts of things that can perceive, think, want, and act all according to rules or norms. (As Sellars has frequently said to his students, human lives are "fraught with ought".) Within the framework of the manifest image, human being qua persons interact with a physical environment that is largely composed of objects that persist through time, that have determinate properties, and that interact with each other according to well-defined causal regularities. The primary vocation of philosophers has been to explicate the manifest image, with important discoveries being made by Plato and Aristotle, Kant and Hegel, and Wittgenstein and Heidegger. Though Sellars does call Aristotle 'the philosopher of the manifest image,' arguably his reading of Aristotle is refracted through ordinary-language philosophers such as Strawson, Austin, and Ryle.

By contrast, "the scientific image" is a philosophical construction of recent vintage, as it is here that philosophers draw on the sciences – cosmology, physics, chemistry, biology, and psychology – to construct a unified or nearly unified picture of the universe and our place in it

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi based on what the sciences tell us about the universe and about ourselves. The crucial difference, Sellars tells us, is that the scientific image, but *not* the manifest image, "involves the postulation of imperceptible entities, and principles pertaining to them, to explain the behavior of perceptible things" (ibid., 7). In the sciences, we explain phenomena not just by describing observable regularities and irregularities but by building models of postulated entities that explain why observable phenomena display the regularities and irregularities that they manifestly do. Moreover, various models can be evaluated as better or worse by deriving possible observations from them and determining if the possible observations obtained from the model are sufficiently similar to what is actually observed under appropriately constrained conditions. In this way the sciences, unlike all other forms of intelligibility, allow the world to get a vote in what we say about it.

The resulting tension between the manifest image and the scientific image turns on how they allow us to conceptualize what makes humans unique, since "this difference in level appears as an irreducible discontinuity in the *manifest* image, but as, in a sense requiring careful analysis, a reducible difference in the *scientific* image" (ibid.). Within the scientific image, a human being is an evolved organism comprised (ultimately) of particles described by fundamental physics. (In his later work Sellars embraces a version of process monism; see Seibt 2016 for a process metaphysics reconstructed from Sellars's speculative suggestions). What emerges from the scientific image – the metaphysics generated by taking the sciences seriously – is going to be very different from, and a substantive challenge to, the implicit ontology of the manifest image. And since the manifest image is both the epistemological ground of the scientific image and also the framework of practical reasoning, including moral reasoning, something of it must be retained or preserved in light of the superior ontology of

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi science. In this crucial respect Sellars, like Meillassoux, thinks that philosophers must recognize not just the epistemic authority of science but also that the scientific image has ontological priority over the manifest image.

One of the philosophical problems that has kept us from recognizing the challenge of science is what Sellars calls "the Myth of the Given". Though the 'entire framework of givenness' is not the most useful place from which to begin, it is important to note how widespread this problem is in the history of philosophy:

This framework has been a common feature of most of the major systems of philosophy, including, to use a Kantian turn of phrase, both 'dogmatic rationalism' and 'skeptical empiricism'. It has, indeed, been so pervasive that few, if any, philosophers have been altogether free of it; certainly not Kant, and, I would argue, not even Hegel, that great foe of 'immediacy'. ... If, however, I begin my argument with an attack on sense-datum theories, it is only as a first step in a general critique of the entire framework of givenness. (Sellars 1963b, 127-128)

On Sellars's account, one of the deeper errors in Western philosophy – one that informs dogmatic rationalism just as much as it does skeptical empiricism – what he calls "the Myth of the Given". The Myth of the Given is not just the attack on empiricist theories of foundational epistemology – though it is *also* that (see DeVries and Triplett 2000 for the canonical explication of this interpretation) – but an attack on *any* epistemological foundationalism which purports to identify an entirely presuppositionless stratum of our cognitive experience, whether the *illuminatio* of Augustine or the data of the positivist (Sellars 1963c, 356). Even the fundamental structures of the mind, which are held to immediately and intuitively known by Kant and Husserl, cannot be Given. In a late formulation, Sellars remarks that "[t] o reject the

Myth of the Given is to reject the idea that the categorial structure of the world – if it has a categorial structure – imposes itself on the mind as a seal imposes an image on melted wax" (Sellars 2007a, 237; emphasis original). This formulation – what O'Shea (2005) calls the Myth of the Categorial Given – entails that we lack the requisite cognitive capacity to immediately apprehend the absolute and fundamental nature of things, without any mediation by way of acquired conceptual frameworks, bodily engagement, and technological intervention. Though Sellars does not put the point quite this way, the same is true of the mind itself: we lack any privileged faculty for immediately apprehending the absolute and fundamental nature of the mind itself. (It is precisely in this sense that Kant runs afoul of the Myth of the Given.) To reject the entire framework of givenness about both the world and the mind is to acknowledge that all human cognition, *including* science, is a self-correcting enterprise with no foundation in divine revelation, self-evident truths, or sense-impressions (Sellars 1963b, 170); it is an evolving world-story that is undergoing continuous reconstruction, guided by an ideal of maximum explanatory coherence of our changing non-conceptual episodes of sensory consciousness (Sellars 1963c, 356).

It is precisely because we must avoid the Myth of the Given that the manifest image cannot be fully understood on its own terms. If we take the manifest image on its own terms, and content ourselves with elucidating descriptions of our basic modes of being-in-the-world, then we lack all critical purchase on how we acquire the cognitive competence to reliably track what those modes are. Our being-in-the-world would be at best a 'pragmatic foundation' by virtue not inquiring into the causal processes that underpin the manifest image itself. The problem is that attitude is ultimately unsatisfying. For it is a consequence of modernity that even the most steadfast devotee of the manifest image will admit that there is a *historicity* to our self-

understanding. Should one suppose that this history only began when writing was invented? Or should we acknowledge, with Darwinism, that there is a graduated continuity between human beings and other animals, such that what appears to be an irreducible discontinuity between humans and the rest of nature within the manifest image is in fact a reducible difference within the scientific image (Sellars 1963a, 6)? Notice that one can even argue, though Sellars does *not*, that there is "a manifest image" for different kinds of sentient organisms (see Dennett 2017). To avoid the Myth of the Given *about the manifest image*, we need to not only *describe* the manifest image but also *explain* it. But since the manifest image lacks the resources for explaining itself fully, we must understand the manifest image in terms of the scientific image.

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On this line of thought, we can use the scientific image to understand features of the manifest image that cannot be understood from within the manifest image. Specifically, we can evaluate the epistemic credentials of a conceptual framework that cannot be established from within the manifest image alone. A central feature of Sellars's thought is his sensitivity to the plurality of conceptual frameworks. Within the manifest image, we can describe a plurality of conceptual frameworks, each of which has its own constitutive rules for permissible assertions (what Sellars calls "semantic assertability" or "S-assertability"). Though in a relatively early paper Sellars suggests that these frameworks compete with each other in "the marketplace of experience" (1963d, 320) Sellars quickly realized that appeals to 'experience' cannot play this role without our accepting a mythical Givenism about experience itself. How, then, can we evaluate competing conceptual frameworks so as to forestall complete relativism and what Meillassoux calls 'fideism'?

The answer is there is more to discourse than what it allows us to *say*. There is also what discourse *does*, and what it does (accordingly to Sellars) is "picture". The importance of

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi picturing can hardly be understated. Writing about the chapter on picturing in *Science and Metaphysics* (1967), Sellars remarks that

the argument of this chapter also provides that missing ingredient, the absence of which from Peirce's account of truth leaves the 'would-be' of the acceptance 'in the long run' of propositions by the scientific community without an intelligible foundation; a fact which has obscured the extent to which this gifted composer of variations on Kantian themes succeeded in giving metaphysics a truly scientific turn. (Sellars 1967, vii)

In other words, if we can understand what 'picturing' is, we will not only achieve the Kantian/Peircean ambition of a truly scientific metaphysics, but we would also have a strategy for refuting Meillassoux's criticism that appeals to 'a community of inquirers' are a version of correlationism, since we would be able to *explain* (in scientific terms) why it is the case that the truth is what all inquirers would converge upon, were inquiry to continue as long as possible.

Unfortunately, picturing is an opaque doctrine (but see Rosenberg 2007 and Seibt 2009 for important contributions). Briefly stated, Sellars holds that besides the norm-governed *semantic* properties of linguistic utterances, such utterances also have *factual* properties (see Sellars 1967, Chapter 3; see also Sellars 1979, Chapter 5). A sentence is, among other things, a spatio-temporal object – as are the 'inner sentences' of linguistically shaped thought, e.g. brain-states. Sentences and thoughts have material existence – as noises and marks and as patterns of cortical activity. As material objects, they stand in complex mapping relations to *other* material objects. An extraterrestrial observer could observe the mapping relation between tokenings of "that's a cute dog!" and the occasions of such tokenings without knowing anything at all about the semantics of English or the norms that govern correct use of such expressions. What our

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi hypothetical extraterrestrial can do, in Sellarsian terms, is understand how such expressions picture without any awareness of what they signify.

Though the bulk of Sellars's discussion of picturing concerns language – what he calls "natural-linguistic objects" – in a few places Sellars indicates that picturing is not essentially linguistic. This point is nicely made in relatively late essays, "Mental Events" (Sellars 2007b) and "More on Givenness and Explanatory Coherence" (Sellars 1988). In both essays Sellars builds on earlier work on picturing to sketch a view on which picturing is not just a theory of language but a theory of cognition. In "Mental Events" Sellars appeals to a contrast between 'what is first in the order of understanding' and 'what is first in the order of being'. In the order of understanding, we investigate the manifest image and inquire into the kinds of cognitive capacities and incapacities we would have to have in order for the manifest image to be as it is described. Within the order of understanding, mental phenomena are initially disclosed as essentially linguistic. But just as physical phenomena within the order of understanding are initially disclosed as spatio-temporal objects with determinate properties and only within the order of being are subsequently shown to particles (or fields, or structure, or however the metaphysics of physics shakes out), so too mental phenomena have a reality in the order of being: that of being "animal representational systems" (Sellars 2007b, 283). An ARS is just a system of representings, instantiated in a central nervous system, that allow an animal to navigate its environment. In the order of being, mental phenomena just are the dynamical transformations of neuronal activity that allow animals (including us) to skillfully navigate their environments, and they do in part by mapping the relation of the animal to its environment. The animal does not only map its environment – not by using a map but by implementing one – but also its own relation to its environment.

The implication of this move is that it allows Sellars to explain the manifest image – in particular, our self-conception as epistemic agents governed by epistemic (and ethical) norms – within the scientific image. As Sellars puts it, "since agency, to be effective, involves having reliable cognitive maps of ourselves and our environment, the concept of effective agency involves that of our IPM judgments [introspective, perception, and memory judgments] being likely to be true, that is, to be correct mappings of ourselves and our environments" (Sellars 1988, 190) – to which Sellars adds a footnote to 'mappings': "May I call them pictures?" I think that this not a question of Sellars having reservations about the applicability of picturing to non-human cognitive systems, but rather his awareness of the tentativeness of the suggestion being put forth: that picturing is not just linguistic but essentially cognitive.³

But why engage in the scientific image at all? Why is the manifest image insufficient? The answer, I think, lies in Sellars' remark that "although the manifest image – the *Lebenswelt* – has its own intelligibility, it also has its mysteries. It poses questions which it does not have the resources to answer. The conception of the scientific enterprise as the search for the intelligible in itself is a theme which transcends the limits of the present occasion" (Sellars 2007b, 282-283). What motivates the shift from the manifest image – what is first *in relation to us* – to the scientific image – what is first *in itself* – is that the manifest image lacks the requisite explanatory resources to account for why the manifest image has the features that it does. We cannot explain, in using phenomenology, why the life-world has the constitutive features that it does. To explain that, we would need to understand our own phenomenology in terms of physics, chemistry, neurophysiology, ecology, and evolutionary theory. Phenomenology

³ The predictive processing model of neurocomputation offers one suggestion as to how picturing is implemented; see Clark 2016.

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi cannot be a fully autonomous, self-contained discourse without taking itself as mythically Given.

If strong correlationism is the Myth of the Given about the manifest image, then strong correlationism overcome from within because the correlation cannot explain itself. And it cannot do that because the conceptual resources of the manifest image are inadequate to describe the correlation itself *in rerum natura*, since that involves the explanatory resources specific to modern science (including but not limited to postulation of unobserved entities). Whereas the manifest image of the correlation can be explicated in terms of the immediate awareness of meanings or senses (*Sinne*), the *noesis-noemata* relation, or the *existentialia* of Dasein, the manifest image of the correlation cannot explain why these relations obtain, to the extent that they do. To do that, we must use the descriptive and explanatory resources of the scientific image to understand the correlation itself *in rerum natura*. Picturing can thus be understood as Sellars's term for the correlation *in rerum natura*.

4. Speculative Materialism versus Pragmatic Naturalism

It should be clear by now that Meillassoux and Sellars can be aligned in several crucial respects. Both Meillassoux and Sellars maintain that the path towards affirming metaphysical realism – that we can know what things are in themselves – involves turning phenomenology against itself. Despite its avowed realistic orientation, phenomenology cannot entirely avoid the anti-realism that lies at its core (for a detailed explication of this idea, see Sparrow 2014). Yet neither Meillassoux nor Sellars would say that phenomenology can be utterly ignored. Rather, for both philosophers, metaphysical realism – though Meillassoux would not use

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi 'metaphysical' this way -- must be established through a critique of phenomenological antirealism.

At this point, however, the similarities end, because Meillassoux and Sellars use different strategies for overcoming phenomenology from within. Meillassoux's strategy is grounded in considerations about *modality*: it is because the phenomenologist is committed the contingency of the strong correlation that Meillassoux can argue that the contingency itself is absolutely necessary. Sellars, by contrast, argues that the weakness in phenomenology is not *modal* but *explanatory*: the phenomenologist can *describe* the manifest image but she cannot *explain* it. Are these strategies compatible? I think there are two compelling reasons for thinking that they are not.

Firstly, there is no room for scientific explanations in Meillassoux's speculative materialism. This may seem bold, given how the ancestral statements motivate Meillassoux's critique of phenomenological anti-realism. Surely Meillassoux rightly observes that scientific explanations require a metaphysics of nature in which spatiotemporal relations pre-exist the emergence of consciousness, and hence do require us to think of a 'time before temporality,' if we take 'temporality' as the lived embodied awareness of temporal movement (what Bergson would call "la durée" or "duration"). But it is insufficient to say that in the sciences we think of the coming into being of embodied minds for which the correlation is true – for which object and subject are co-constitutive of experience. To think this, in the sense of merely conceiving it, is not in fact what the sciences promise and deliver. As David Roden provocatively puts the point:

any explanation of emergent behaviour in a given system should have a mechanistic component framed in terms of its constituents and the ecological relations they enter

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi into: for example, a system of chemical reactants far from equilibrium, or a population of individuals in a pre-state society. Spooky or strong emergence would de-fang the decentering effect by allowing subjectivity to jump fully formed out of the slime of heterogeneity even where these attributes do not form part of the basic furniture of the world. Naturalists, materialists and posthumanists should, then, require that our theories of intentionality be compatible with some gradualist explanation of the development of intentional systems from non-intentional ones. ... norm-instituting powers cannot have appeared fully formed but must have emerged gradually from the scum of sentience. (Roden 2017, 108)

Any compelling materialism must be able to explain, or at least point towards explaining, how sapience emerges from 'the scum of sentience' and also how sentience emerges from the utter indifference of the universe. Indeed, what needs to be explained is not just the origins of consciousness and rationality but also the origins of caring itself. Organisms care; the cosmos does not.

The question now is, what is Meillassoux's own attitude towards scientific theories? The perhaps shocking answer is that they are irrelevant. Meillassoux affirms that "ontologically, precisely nothing distinguishes us: stone, fly or man – contingent beings, no more and no less" (Meillassoux 2016, 128). Why is this the case? On my reading, this statement indicates what Meillassoux means by 'ontology' – what is ontological is what is modal, and ontology is the study of modality. Since all beings are contingent – have the same modal status – there are no ontologically significant differences between them.

The remarkable conclusion Meillassoux then draws is that scientific theories are irrelevant to ontology:

scientific *theories* regarding an actual world – in this case, ours – have nothing to tell us. It is in this sense that we diverge most clearly from a metaphysics which, speaking of what there is, necessarily crosses the path not only of theories but also of facts responsible for the theory of the sciences of its time. And since these theories and their constitutive facts never stop evolving because of the evolution of science itself, they will always ruin the metaphysical constructions that have staked (whether they like it or not) their existence on these scientific complexes – whether the latter are peripheral or central to their own construction (for any metaphysics that is rigorously systematic will collapse unless some point, albeit a peripheral one, of its structure is drawn from the movement of science). (ibid., 139)

In short, for Meillassoux, it is the *fallibility* of scientific theories that makes them utterly *ill-suited* for philosophy. It is precisely because theories are both fallible and corrigible – that science is, as Sellars puts it, a "self-correcting enterprise" – that the theories of science have nothing at all to do with philosophy. Rather, "as philosophers, we have to deal with the sense of our existence, and a philosopher deals with this sense on the level of an eternal truth, not that of the 'state of the art'. ... No scientific theory will have any influence on our conception of being and becoming, because our vision of being does not cross with any fact, and consequently any theory of any fact" (ibid., 143). The problem now is this: Meillassoux's *materialism* depends on what the sciences tell us about the *actual* world. It is precisely because of what the sciences tell us about the actual world that we know that the universe is 13.5 billion years old, that life on this planet is approximately 3.5 billion years old, and that anatomically

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi modern *Homo sapiens* evolved between 100,000 and 200,000 years ago. It is only due to these scientific truths – the ancestral statements – about the actual world that we cannot accept any idealism or vitalism as the ontology of science. Without empirical science, Meillassoux would have no basis for rejecting the crypto-vitalism of Nietzsche or Deleuze. Yet if Meillassoux's materialism is, as the Heideggerians say, merely 'ontic', and the genuinely ontological truths are only the logico-modal facts about beings – that is, the necessity of their contingency – then Meillassoux's commitment to the ontological difference between the ontic and the ontological means that there is a unbridgeable gulf between logico-modal truths (the ontological) and scientific truths (the ontic). Yet it is precisely this gulf that the phrase "speculative

materialism" attempts to cross.

The tension between the modal (ontological) and the actual (ontic) can be seen in another respect. On the modally grounded principle of unreason, contingencies are not governed any logical considerations, which means that *anything can happen at any time*. On Meillassoux's account, the question, "why did life, sentience, and sapience emerge?" has only one answer: because nothing prevented them from doing so. In hyper-Chaos, because any possibility *may* be realized at *any* time, without cause or reason, the correlation does not emerge but simply *happens*. Here the rejection of the principle of sufficient reason, which Meillassoux takes to be important for overcoming dogmatic metaphysics (including theology and ideology), goes much too far. If anything can happen at any time for no reason at all, then it is absurd to look for explanations. Here the speculative destruction of the PSR conflicts with the explanatory requirements of a consistent (even if merely ontic) materialism.

Nevertheless, Meillassoux is surely correct that if we are to forestall a return to dogmatic metaphysics, then we must reject the principle of sufficient reason. What we need is an

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi alternative to both the principle of sufficient reason *and* the principle of unreason. That alternative, I suggest, can be found in (among other places) the methodological reflections of the American pragmatist Charles S. Peirce. In his 1888 "A Guess at the Riddle", itself an astonishing work of comprehensive philosophical and theological reasoning, Peirce puts forth the following principle:

every fact of a general or orderly nature calls for an explanation; and logic forbids us to assume in regard to any given fact of that sort that it is of its own nature absolutely inexplicable. This is what Kant calls a regulative principle, that is to say, an intellectual hope. The sole immediate purpose of thinking is to render things intelligible; and to think and yet in that very act to think a thing unintelligible is a self-stultification. ... True, there may be facts that will never get explained; but that any given fact is of the number, is what experience can never give us reason to think; far less can it show that any fact is of its own nature unintelligible. We must therefore be guided by the rule of hope, and consequently we must reject every philosophy or general conception of the universe, which could ever lead to the conclusion that any given general fact is an ultimate one. We must look forward to the explanation, not of all things, but of any given thing whatever. (CP 1.405)

What Peirce has done here is, following Kant, suggest that the principle of sufficient reason be understood as a *methodological* rule for successful empirical inquiry. It is not an ontological requirement but "an intellectual hope", and one that, even if it cannot be fully grounded in *rational* deductions from first principles, is nevertheless not *unreasonable*, since it does in fact guide successful empirical inquiry. Moreover it is rather difficult to see how scientists ought

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi to proceed, if they could proceed, should a philosopher deprive them of that eminently reasonable intellectual hope.

The second point of incompatibility between Meillassoux and Sellars concerns whether Meillassoux commits himself to a version of the Myth of the Given (see Christias 2016). Rather than rehearse that argument, I shall offer a slightly different criticism that converges with his. Recall that the strong correlation that Meillassoux takes aim against is that of Heidegger and Wittgenstein: this is the mutuality thesis unmoored from any relation to things in themselves, which are no longer even thinkable. The question remains, however, whether Meillassoux has really displaced the correlation. In his speculative realism, the human mind does have a power of intellectual intuition that allows it to grasp what is absolutely real: the objects (or "objects") of pure mathematics, and in particular those objects as understood in terms of ZFC set theory. But this is itself yet another correlation.

To see this, I distinguish between *the sensible correlation* and *the intellectual correlation*. The sensible correlation, that of Heidegger and Wittgenstein (also Adorno and Merleau-Ponty) is the correlation of our capacities for sensible intuition and the phenomena of lived experience. And it is this sensible correlation that Meillassoux shows to be necessarily contingent. But he is able to do only on the basis of *another* correlation, the intellectual correlation between our capacity for intellectual intuition and sets. The intellectual correlation must also be contingent if Meillassoux is to avoid becoming, *malgré lui*, an absolute idealist, or one who makes the correlation itself into a necessity. Hence the contingency of the intellectual correlation can no more be grounded or justified than the contingency of the sensible correlation.

If this line of criticism is cogent, then it is just a brute fact about us that our cognitive powers can immediately grasp the underlying modal structure of reality. Meillassoux does not even consider the question of the emergence of mathematical thought *qua* absolute knowledge. On this specific point, it is sufficient to note the contrast with Macbeth (2014). Macbeth shares Meillassoux's Fregean conviction that mathematics is absolute knowledge, but also grounds that conviction in a historical (indeed, Hegelian) *explanation* of the emergence of mathematical thought from antiquity to modernity. But since hyper-Chaos is not consistent with the regulative principles underpinning biological and cosmological explanations, so too it is not consistent with historical explanations. As a result, Meillassoux *cannot* help himself to anything like Macbeth's account of the historical emergence of mathematics as absolute knowledge. Without a detailed explanation of how we have acquired the cognitive powers to discern the modal structure of the world, such that we can reliably determine what is and what is not truly possible and necessary, Meillassoux becomes, *malgré lui*, a correlationist.

If the intelligible correlation is the fate of post-speculative realism, does Sellars offer an alternative? That alternative, already briefly canvassed above, is not a *rejection* of metaphysics in favor of speculation but rather a critical revision of metaphysics from dogmatic to *scientific*. Scientific metaphysics, unlike dogmatic metaphysics, does not assume that we have privileged access to some necessarily existing entity. Rather, the principle of sufficient reason becomes a methodological principle or regulative ideal of empirical inquiry, such that we can *explain* (but not *justify*) phenomena of interest to us. With a non-ontological, non-justificatory interpretation of the PSR, we would then be in a position to refuse the overly

Forthcoming in *Analytic and Continental Kantianism* (Routledge), ed Gironi sharp distinction between the ontological and the ontic dimensions of Meillassoux's philosophy. As Adrian Johnston observes:

Both Badiou and Meillassoux suffer from a Heideggerian hangover, specifically, an acceptance unacceptable for (dialectical) materialism of the veracity of ontological difference, of a clear-cut distinction between the ontological and the ontic. ...

Genuine materialism including theoretical materialist philosophy, is risky, messy business ... It doesn't grant anyone the low-effort luxury of fleeing into the uncluttered, fact-free ether of a 'fundamental ontology' serenely separate from the historically shifting stakes of ontic disciplines. Although a materialist philosophy cannot be literally falsifiable as are Popperian sciences, it should be contestable *qua* receptive, responsive, and responsible vis-à-vis the sciences. (Johnston 2011, 110)

Without endorsing Johnston's deference to Karl Popper per se, he is right that the ontological difference – which ultimately turns, in Meillassoux (2016), into the distinction between formal languages (set theory *qua* ontology) and natural languages (the ontic disciplines) – cannot be accepted by dialectical materialists and pragmatic naturalists. It is because we are explaining, and not justifying, that scientific metaphysics can avoid becoming ideology, in Meillassoux's sense. And yet insofar as the scientific metaphysician aspires to an adequate and comprehensive understanding of "how things, in the broadest sense of the term, hang together, in the broadest sense of the term" (Sellars 1963a, 1), she is engaged in a successor-project to metaphysics. Hence the scientific metaphysician is neither a dogmatist (since she wants not justification but explanation) nor a fideist (since she is committed to the epistemological and ontological priority of science) nor a speculative realist (since she rejects the principle of unreason). The Sellarsian project, on this interpretation, simply evades all of

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Meillassoux's taxonomy. Thus scientific metaphysics is *at least* a viable alternative to postmetaphysical speculation.

5. Conclusion

I have argued that Sellars's scientific metaphysics, unlike Meillassoux's postmetaphysical speculation, better fits our self-understanding of our epistemic practices because it allows for a non-ontological interpretation of the principle of sufficient reason. However, even those generally persuaded by this line of reasoning (if there are any) should feel indebted to how Meillassoux frames our philosophical options. Meillassoux is certainly right that we desperately need an alternative to both ideological dogmatism and pluralistic fideism, both of which loom large not just in philosophical discourse but also in contemporary geo-political alignments and re-alignments. I would also concur with Meillassoux that pluralistic fideism is the intellectual *cul-de-sac* into which we are ineluctably led if epistemological and metaphysical inquiries terminate in the self-understanding of the manifest image. If merely describing the structure of the manifest image is all that philosophy can accomplish, then there is no alternative to merely noting the plurality of conceptual frameworks, whatever those might be, such that even science itself becomes but one more opinion. In this respect scientific metaphysics in the tradition of Peirce and Sellars can happily agree with Meillassoux's sociopolitical critique of strong correlationism. Hence, even if scientific metaphysics should be superior to post-metaphysical speculation for achieving the aims that Meillassoux sets out for his project, nevertheless philosophers in the Sellarsian tradition should be grateful to

Meillassoux for allowing us to make explicit why scientific metaphysics has socio-political significance.⁴

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